

ABSTRACT

The invention relates to a multifunctional enzyme that can be derived from crustaceans or fish. The enzyme has at least one of a chymotrypsin, trypsin, elastase, collagenase and exo peptidase activity, and a molecular weight between about 20 kd and about 40 kd as determined by SDS PAGE. Preferably, the multifunctional enzyme has substantial anti cell-cell adhesion activity. Preferably, the multifunctional enzyme has substantial homology with the krill multifunctional enzyme. These enzymes are useful for treating viral infections such as herpes outbreaks, fungal, bacterial or parasitic infections, including the primary and secondary infections of leprosy, colitis, ulcers, hemorrhoids, corneal scarring, dental plaque, acne, cystic fibrosis, blood clots, wounds, immune disorders including autoimmune disease and cancer. Additionally, the invention relates to a method of purifying the multifunctional enzyme, and to a preparation of essentially purified multifunctional enzyme.